



NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION

Goddard Space Flight Center

Secrets of Successful Web Sites

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Overview

- Background
- Setting a Vision for your site
- What's involved in building a site & sustaining it over time
- Measuring your success



Background

- Every successful project pays attention to:
 - Scope
 - Requirements
 - Timeframe
 - Resources
 - Team
 - Success Metrics



Taking a project approach for Web sites makes a difference!

- Scope
 - Align your reason for having a site with your mission
- Requirements
 - What is it your web site will do? What will people walk away with?
- Timeframe
 - Ensure a steady source of timely content
- Resources & Team
 - Best sites are run by teams, with a lead editor-in-chief
- Success Metrics
 - Check your metrics to make sure you're reaching your audience and getting the results you want
 - Use those results to make iterative improvements



Successful Sites

- NASA.gov
 - www.nasa.gov
- NASA's Earth Observatory
 - earthobservatory.nasa.gov
- Starchild
 - starchild.gsfc.nasa.gov
- Science@NASA
 - science.nasa.gov
- Astronomy Picture of the Day
 - antwarp.gsfc.nasa.gov



Background

- NASA's successful Web sites are:
 - Run by teams
 - Managed as projects
- What does this mean?
 - Clear vision of why the site exists
 - Understanding of what's involved in building a site & sustaining it over time
 - Commitment to success



Setting a Vision for your site

- Why do you want a Web site?
 - What do you hope to achieve?
 - What problem are you trying to solve?
- Answers that don't help:
 - My boss wants one
 - Ooh! Shiny!
 - Everyone else has one...
- It has to relate to your mission!



Understanding What's Involved

- Audience
 - Who is your intended audience?
 - What are their expectations?
 - How will you engage them?
- Content
 - What information will you provide?
 - How will you keep it fresh?
- Resources
 - Choices: build or buy?
 - What will it cost to develop? Staff? Maintain?
 - Do we really need another Web site? Could we take advantage of an existing site?



Audience

- Who's your audience?
 - Internal? External?
 - Customers
 - Stakeholders
- Know your audience!
 - What are their needs?
 - What assumptions do we make about different groups?
- Different groups may:
 - Need to be reached in different ways
 - Require different functionality or levels of information
 - Example: accessibility for users with disabilities. Color blind users interact with a site differently than blind users.



Audience Expectations = Project Requirements

- Timeliness
 - Current information is there when I need it
- Accuracy
 - I can rely on the information
- Functionality
 - I have the capability to do the task I need
 - The information is at the level relevant to me
- Usability
 - I can do the task easily
 - I can find what I'm looking for
- Standards
 - Information complies with NASA Policy & Federal Law



Content

- Most important part of a Web site
 - #1 Reason people come back to your site
 - Gets lots of attention in design phase; often becomes an issue post go-live
- Content Lifecycle
 - Where does it come from?
 - Who writes it?
 - How is it maintained? (by whom? how often?)
 - What happens when it becomes dated?
 - Is it appropriate to be published? (information security concerns)



Content

- Key Content Skills
 - Writing (science writing, technical writing)
 - Editing
 - Information Architecture (Librarian skills)
 - Translation: tech-speak to English!
 - Marketing
- Every successful web site has an editor in chief
 - Responsible for accuracy & timeliness of information
 - Accountable for ensuring that the site meets its goals



Technology Implications for Content

- Push to Web 2.0
 - Greater emphasis on interactivity & timeliness
 - Moves effort from technology side to content side
- Example: Blogs
 - How often will you post? (At least every 1-2 weeks)
 - Who reads the comments? Responds to them?
 - Moderated or not?
- Impact on content resources:
 - Requires more care & feeding
 - Requires good writing skills



Getting the Right Team on Board

- 1997 = Webmaster
- 2007 = Web Team
- Typical Team roles
 - Editor in chief
 - Content staff
 - Information Architect
 - Graphic Designer
 - Application Developer(s)
 - System Administrator



Measuring Success

- How do you measure the effectiveness of your content?
 - By examining the **behavior** of your audience
- How do you measure behavior?
 - Specific metrics
 - Common metrics
 - Log analysis, surveys, usability studies, etc.
- How do you decide what to measure?
- What do you do with that information?



Measuring Behavior

- Behavior = what users do with your content
 - What they actually do vs. what you want them to do
 - Are people taking the action you wanted from the information provided?
- Examples:
 - Provide technical information to reduce the number of calls to the helpdesk
 - Metrics: Number of calls to the helpdesk on that topic. Did calls go up, down, or stay the same?
 - Promote something you want people to buy
 - Metric: Sales of that item. Did sales go up, down, or stay the same?
 - You get the idea...



Measuring Behavior

- But what if you're not asking for the reader to do anything?
 - Examples:
 - Magazine articles
 - Features on a particular topic
 - General information
- For measures of general information, measure general behavior
 - Log analysis
 - Surveys
 - Usability Studies
- OK, so when do you use which metric...?



Common Measures

- Log analysis
 - Scope: entire web site readership
 - Pro: measures actual behavior
 - Con: limited information available as to “why”
 - Shows you:
 - What pages were visited?
 - What’s popular/what’s not popular
 - What pages did you WANT to be visited?
 - Does this match?
 - What accounts for the difference?
 - Content could be buried, links could be broken, or the content itself could be unclear
 - How do you get it?
 - These logs are generated automatically by your Web server
 - Your system admin can provide a summary report



Common Measures cont'd

- Surveys
 - Scope: limited group (self selected)
 - Pro: Addresses the “why” of user behavior
 - Con: Self-assessed; may not reflect actual behavior
 - Con: response rate can be low
- Shows you: Detailed information about user opinion
- How do you get it?
 - Note: for government, there are rules (GPRA, privacy) that apply to the use of surveys
 - Find out what your Center’s survey procedures are



Common Measures cont'd

- Usability Studies
 - Scope: limited group (selected representative users)
 - Pro: measures actual behavior
 - Con: can be costly and time consuming
- Shows you:
 - The “why” behind actual user behavior
 - Allows you to make small changes and view results iteratively
- How do you get it?
 - Usability studies can be run with as few as 5-7 people
 - See www.usability.gov for more information



What to Measure?

- How do you decide what to measure?
 - Desired Outcome!
- Examples:
 - What's the one thing you want users to walk away with?
 - What's the mission of your site?
 - You do have one, right?
 - If my site is successful, users will... do what?
 - How do you compare?
 - ... to yourself, at another point in time?
 - ... to the competition?



Summary

- Taking a project approach makes a difference!
- Summary of advice:
 - Align your reason for having a site with your mission
 - Ensure a steady source of timely content
 - Assign an editor to be responsible for the site
 - Check your metrics to make sure you're reaching your audience and getting the results you want
 - Use those results to make iterative improvements



Questions?

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- Contact Information:

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